

the second resonator including a second voltage tunable dielectric varactor, each of the first and second voltage tunable dielectric varactors comprising a tunable dielectric layer capable of being operated at room temperature, wherein the first and second resonators comprise:

a ceramic block defining at least two openings extending from a top surface of the ceramic block toward a bottom surface of the ceramic block.

2. (Original) The radio frequency filter according to claim 1, wherein one of the dielectric varactors is connected between each of the openings and an outside surface of the ceramic block.

3. (Original) The radio frequency filter according to claim 1, wherein the top surface of the ceramic block is partially metallized.

4. (Original) The radio frequency filter according to claim 2, further comprising:

a first electrode positioned a predetermined distance from a first one of the openings;

a second electrode positioned a predetermined distance from a second one of the openings;

a third dielectric varactor coupled between the first electrode and the first one of openings; and

a fourth dielectric varactor coupled between the second electrode and the second one of the openings.

5. Cancel Claim 5

6. (New) The radio frequency filter according to claim 4, wherein the second electrode may be a "T-type" electrode.

7. (New) The radio frequency filter according to claim 4, further comprising a trapezoidal projection on the second electrode.

8. (New) The radio frequency filter according to claim 4, wherein the varactor comprises a substrate and a first electrode positioned on a first portion of a surface of the substrate; and

a second electrode positioned on second portion of the surface of the substrate and separated from the first electrode to form a gap therebetween; and

wherein a tunable dielectric material may be positioned on the surface of the substrate and in the gap between the first and second electrodes.

9. (New) The radio frequency filter according to claim 8, wherein a section of the tunable dielectric material extends along a surface of the first electrode opposite the substrate and wherein the second electrode includes a projection that is positioned on a top surface of the tunable dielectric layer opposite the substrate forming a rectangular shape and extending along the top surface such that it vertically overlaps a portion of the first electrode.

10. (New) The radio frequency filter according to claim 1, wherein the tunable dielectric layer may be a thin or thick film.

11. (New) The radio frequency filter according to claim 4, further comprising a triangle-type projection on the second electrode.